WHAT IS CLAIMED IS:

1. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said sealed vessel is made of a nonconductive material.

2. A magnetic resonance imaging apparatus according to claim 1, characterized in that said sealed vessel is made of a fiber-reinforced plastic material.

3. A magnetic resonance imaging apparatus according to claim 1, characterized in that an inner wall of said sealed vessel also serves as a liner of said high-frequency coil.

4. A magnetic resonance imaging apparatus according to claim 1, characterized in that an outer wall of said sealed vessel also serves as an inner wall of said static magnetic field magnet.

5. A magnetic resonance imaging apparatus according to claim 1, characterized in that a cover of said sealed vessel has a shape protruding outward in the form of a bowl.

6. A magnetic resonance imaging apparatus according to claim 1, characterized in that a cover of said sealed vessel is reinforced by a plurality of ribs.

7. A magnetic resonance imaging apparatus

comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, a sealed vessel housing said gradient coil, a coupling plate attached to said sealed vessel, an inner cable for electrically connecting said gradient coil to said coupling plate, and an outer cable connected to said inter cable via said coupling plate,

characterized in that said coupling plate is attached to said sealed vessel via an antivibration member.

8. A magnetic resonance imaging apparatus according to claim 7, characterized in that said antivibration member has a ring-like shape.

9. A magnetic resonance imaging apparatus according to claim 7, characterized in that said coupling plate is fixed to said sealed vessel with a plurality of screws.

10. A magnetic resonance imaging apparatus according to claim 9, characterized in that a spacer having a damping property is interposed between said screw and said coupling plate.

11. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said gradient coil is mounted on said static magnetic field magnet via first

antivibration members, and

said sealed vessel is constituted by a plurality of parts, and at least some of the parts are joined via second antivibration members.

12. A magnetic resonance imaging apparatus according to claim 11, characterized in that said first antivibration members are discretely arranged below said gradient coils.

13. A magnetic resonance imaging apparatus according to claim 11, characterized in that said first antivibration members are arranged below said gradient coil on front and rear sides.

14. A magnetic resonance imaging apparatus according to claim 11, characterized in that said sealed vessel includes a liner, an outer wall also serving as an inner wall of said static magnetic field magnet, and covers covering a gap between said liner and said outer wall.

15. A magnetic resonance imaging apparatus according to claim 14, characterized in that said second antivibration member is placed between said liner and said cover.

16. A magnetic resonance imaging apparatus according to claim 15, characterized in that second antivibration member has a substantially annular shape having a diameter substantially equal to an inner diameter of said cover or said liner.

17. A magnetic resonance imaging apparatus according to claim 11, characterized in that said second antivibration member has a substantially L-shaped cross-section.

18. A magnetic resonance imaging apparatus according to claim 11, characterized in that said cover is jointed to said static magnetic field magnet via third antivibration members.

19. A magnetic resonance imaging apparatus according to claim 18, characterized in that said third antivibration member is made of a rubber-based material.

20. A magnetic resonance imaging apparatus according to claim 11, characterized in that said cover is joined to said static magnetic field magnet with bolts, third antivibration members are inserted between said cover and said static magnetic field magnet, and fourth antivibration members are inserted between said cover and heads of the bolts.

21. A magnetic resonance imaging apparatus according to claim 11, characterized in that said third and fourth antivibration members are made of a rubber-based material.

22. A magnetic resonance imaging apparatus according to claim 11, characterized in that said first and second antivibration members are made of a rubber-based material.

23. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a sealed vessel placed inside said static magnetic field magnet, a gradient coil housed in said sealed vessel, and a high-frequency coil placed inside said sealed vessel,

characterized in that a shield member for suppressing magnetic interference between said gradient coil and said high-frequency coil is placed between said gradient coil and said high-frequency coil in said sealed vessel.

24. A magnetic resonance imaging apparatus according to claim 23, characterized in that said shield member is bonded to an inner circumferential surface of said gradient coil.

25. A magnetic resonance imaging apparatus according to claim 23, characterized in that a plurality of holes or slits are formed in said shield member.

26. A magnetic resonance imaging apparatus according to claim 23, characterized in that said high-frequency coil forms a resonance circuit, together with a capacitor, and the resonance circuit has switches for electrically isolating said high-frequency coil from the capacitor.

27. A magnetic resonance imaging apparatus comprising a static magnetic field magnetic, a gradient coil, and a high-frequency coil,

characterized in that said high-frequency coil includes a coil spool, a coil conductor formed on said coil spool, a cover housing said coil spool together with said coil conductor, and a first vibration absorbing member placed between said coil spool and said cover.

28. A magnetic resonance imaging apparatus according to claim 27, characterized in that said coil spool is fixed in said cover with said first vibration absorbing member.

29. A magnetic resonance imaging apparatus according to claim 27, characterized in that said cover is made up of a plurality of cover elements, sand said cover elements are joined to each other via a second vibration absorbing member.

30. A magnetic resonance imaging apparatus according to claim 27, characterized in that an electric circuit unit including a capacitor forming a resonance circuit, together with said high-frequency coil, is housed in said cover, and said electric circuit unit is surrounded by a third vibration absorbing member.

31. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, a sealed vessel housing said gradient coil, a coupling plate attached to said sealed vessel, an inner cable for electrically

connecting said gradient coil to said coupling plate, and an outer cable connected to said inter cable via said coupling plate,

characterized in that a capable terminal to be inserted into a terminal of said coupling plate is attached to an end of said cable, and the cable terminal is fixed to a core of said cable by contact bonding.

32. A magnetic resonance imaging apparatus according to claim 31, characterized in that the cable terminal is deformed into a hexagonal cross-sectional shape by the contact bonding.

33. A magnetic resonance imaging apparatus according to claim 31, characterized in that the cable terminal is covered with an electric insulating member, together with the terminal.

34. A magnetic resonance imaging apparatus according to claim 33, characterized in that the electric insulating member is made of a thermosetting material.

35. A magnetic resonance imaging apparatus according to claim 33, characterized in that at least a portion of a contact portion between the electric insulating member and said gradient coil is covered with silicone resin.

36. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient

coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said sealed vessel is jointed to said static magnetic field magnet or a case thereof via an annular flange.

37. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said sealed vessel has a reinforcing projection portion on an end face.

38. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that a corner of said sealed vessel is rounded.

39. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said sealed vessel is constituted by a plurality of vessel portions, and the vessel portions are joined to each other via a packing member.

40. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient

coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said sealed vessel has a window.

41. A magnetic resonance imaging apparatus according to claim 40, characterized in that said gradient coil has a scale for allowing visual recognition of a position of said gradient coil via the window.

42. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that a mechanism for changing a position of said gradient coil independently of said sealed vessel is provided.

43. A magnetic resonance imaging apparatus comprising a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that said static magnetic field magnet is a superconductive magnet, a cold head having a displacer which performs a piston action for heat exchange is provided for said superconductive magnet, and the cold head has a vibration absorbing mechanism.

44. A magnetic resonance imaging apparatus according to claim 43, characterized in that said

vibration absorbing mechanism resonates at a power supply frequency.

45. A magnetic resonance imaging apparatus comprising a gantry including a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that a metal piece or gel-like substance is bonded to said gantry to shift a natural frequency from a frequency of vibrations of said gradient coil.

46. A magnetic resonance imaging apparatus comprising a gantry including a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that a slit for shifting a natural frequency from a frequency of vibrations of said gradient coil is formed in said gantry.

47. A magnetic resonance imaging apparatus comprising a gantry including a static magnetic field magnet, a gradient coil, a high-frequency coil, and a sealed vessel housing said gradient coil,

characterized in that a plurality of metal pieces or gel-like substances having different masses are bonded to said gantry to shift a resonance frequency.

48. A magnetic resonance imaging apparatus comprising a gantry including a static magnetic field magnet, a gradient coil, a high-frequency coil, and

a sealed vessel housing said gradient coil,

characterized in that said sealed vessel is formed independently of said static magnetic field magnet.